Inventors Dr Robert A. Dixon & Donald J Hackman 614-451-7251

atents\pla-metl-taper bonding\extend taper\ utility Extended screw shanks amend 11-30-04 (3)

Rejection 35 USC § 102 RESPONSE TO THE EXAMINERS ARGUMENTS

02/23/05

The Examiner correctly points out that the screw head, (Tornier) 4,488,543 as shown in figure 3 item 3a, does indeed protrude into the bone.

Referring to the attached marked up copy of Figure 3 of Tornier (4,488,543) it is obvious that the head protrudes a relatively small distance into the bone. For reference, in Figure 3, the length of the screw head protruding below the plate is less than 1/3 of the diameter of the screw.

Now comparing the marked up Figures 8 and 9 of Dixon (10/083,332) it is obvious that the screw head protrudes a realatively long distance into the bone. For reference, in figures 8 and 9 the length of the head protruding below the plate is equal to or greater than the diameter of the screw.

It is apparent that in the configurations of figures 8 and 9, the greater head length gives more bone surface area to support the compression stresses resulting from reacting radial loads on the screw. The longer length of the screw heads in figures 8 and 9 also gives a longer lever arm to reduce the bending angle of the screw with respect to the bone. It is apparent that figure 3 shows much less support area and a much shorter lever length.



APP. NUMBER 10/083, 332

U.S. Patent

Dec. 18, 1984

4,488,543









